

### Abstract of the Disclosure

A real time control system capable of accurately supporting the real time characteristics of a multitasking digital signal processor (DSP) which requires an operating system (OS), is provided. In this real time control system, a ready queue and a waiting queue each includes a priority link having information indicating the first task control block and the last task control block among task control blocks of the same priority in a multitasking environment, and a queue link having information indicating the first task control block and the last task control block among tasks for a DSP according to the purpose of use. Timer control blocks are managed using a timer wheel having a pointer arrangement structure. A memory is divided into an internal memory and an external memory, and thus the internal and external memories are managed respectively at user request. Therefore, the real time characteristics of multitasking DSPs can be accurately supported by eliminating the non-deterministic characteristics as much as possible.